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PTO Rev. 10/95		U.S. Department of Commerce Patent and Trademark Office		Application Number	10/806,945
TRANSMITTAL FORM <i>(to be used for all correspondence during pendency of filed application)</i>				Filing Date	March 22, 2004
				First Named Inventor	Yi-Lung Kuo
				Group Art Unit Number	2835
				Examiner Name	YEAN HSI CHANG
Total Number of Pages in This Submission		7	Attorney Docket Number		23724-07788

ENCLOSURES (check all that apply)	
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SIGNATURE OF ATTORNEY OR AGENT			
Signature:			
Attorney/Reg. No.:	Robert A. Hulse. No. 48,473	Dated:	June 14, 2005

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IN THE UNITED STATES
PATENT AND TRADEMARK OFFICE

APPLICANTS: Yi-Lung Kuo
APPLICATION NO.: 10/806,945
FILING DATE: March 22, 2004
TITLE: Removable Mounting Structure for Installing and Accessing a
Computer Drive in a Computer
EXAMINER: Yean Hsi Chang
GROUP ART UNIT: 2835
ATTY. DKT. NO.: 23724-07788

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Dated: June 14, 2005

By:

Robert A. Hulse, Reg. No. 48,473

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**STATEMENT OF ACCURATE TRANSLATION OF NON-ENGLISH-LANGUAGE PRIOR-
FILED PROVISIONAL APPLICATION PURSUANT TO 37 C.F.R. § 1.78(a)(5)(iv)**

Sir:

The above-identified application claims the benefit of U.S. Provisional Application No. 60/456,643, filed March 20, 2003, which was filed in a language other than English. In accordance with 37 C.F.R. § 1.78(a)(5)(iv), Applicant hereby submits an English-language translation of the non-English-language prior-filed provisional application and a statement that the translation is accurate.

Applicant engaged the services of a competent translator to obtain the attached English translation. Accordingly, the attached English translation is believed to be an accurate translation of the non-English-language prior-filed provisional application, upon which the above-referenced utility patent application is based.

If it is believed for any reason that direct contact would resolve any remaining issues in this matter, the Patent Office is encouraged to telephone the undersigned at the number given below.

Respectfully submitted,
YI-LUNG KUO

Dated: June 14, 2005

By: 

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Design Name: Internal Drive Installation Mechanism

Abstract:

This design covers an internal drive installation mechanism which contains a straight U frame with one flank at each end. One flank offers a screw hole and a downward fold. After placing and fastening hard disk drive on bottom side of the straight U frame, and stacking and fixing floppy disk drive onto it, insert the straight U frame with drives into the drive bay inside computer chassis. The drive bay, lightly wider than the straight U frame for easy installation of the drive assembly, offers two screw holes and two hollow tabs which match the two screw holes and the two downward folds on the flanks for fixture of the straight U frame. Mount and screw CD/DVD drive onto the straight U frame through upside opening on the chassis, and then close the upper cover.

Design Description:

This design is an internal drive installation mechanism which accommodates and fastens floppy and hard disk drives inside its straight U frame. After being mounted into the chassis, it allows the CD/DVD drive to be stacked and fixed onto itself through the upside opening on the chassis.

PCs are equipped with floppy and hard disk drives and the CD/DVD drive. There are many kinds of PC chassis available on market, but these chassis accommodates floppy and hard disk drives in drive bay separately. After they are fastened in the drive bay the CD/DVD drive can be horizontally slid into its own bay and fixed. However, most of the floppy and hard disk drives must be separately fastened on the chassis in a limited installation space, which may increase installation time. This configuration does not meet requirements for mass production. Furthermore, horizontal slide of the CD/DVD drive into its own bay complicates assemble and servicing.

For this reason, this design offers an internal drive installation mechanism which enables you to install floppy and hard disk drives in the detachable straight U frame, to mount the straight U frame into the chassis, and to install and fix the CD/DVD drive onto the straight U frame through the upside opening on the chassis. Use of this mechanism saves installation time and facilitates servicing in the future.

This design is an internal drive installation mechanism which contains a straight U frame with one flank at each end. One flank offers a screw hole and a downward fold. After placing and fastening the hard disk drive on bottom side of the straight U frame, and stacking and fixing the floppy disk drive onto it, insert the straight U frame with drives into the drive bay inside the computer chassis. The drive bay, lightly wider than the straight U frame for easy installation of the drive assembly, offers two screw holes and two hollow tabs which match the two screw holes and the two downward folds on the flanks for fixture of the straight U frame. Mount and screw the CD/DVD drive onto the straight U frame through the upside opening on the chassis, and then close the upper cover.

To let you, Examining Commissioners, understand architecture, features and purpose of this design, its preferred embodiment will now be described in details with reference to the following figures.

Figs. 1(a), (b) and (c) are top, right and front views of a preferred embodiment of the internal drive installation mechanism or the straight U frame. The internal drive installation mechanism features a straight U frame (1) with each flank (11) at each end. Each flank features a screw hole (12) and a downward fold (13) at the end. Place and fix the hard disk drive (3) on the bottom side of the straight U frame (1) with a screw (14), and stack and fasten the floppy disk drive (2) onto it with a screw (15). After the hard disk drive (3) is mounted and fastened the floppy disk drive (2) is stacked onto it in this preferred embodiment. You can also stack the hard disk drive (3) onto the floppy disk drive (2) after it is mounted and fixed.

Figs. 1(d) and (e) are front and side views of the preferred embodiment of a flank of the internal drive installation mechanism or the straight U frame. The straight U frame (1) has a flank (11) with a screw hole (12) and a downward fold (13) at the end. The screw hole (12) the downward fold (13) arrangement facilitates fixture of the straight U frame.

Figs. 2(a), (b) and (c) are top, front and side views of the preferred embodiment of the straight U frame installed in the chassis. After the floppy disk drive (2) is stacked onto the hard disk drive (3) and fixed in the straight U frame with screws (14 and 15), the straight U frame with drives is inserted into the drive bay (41) inside the chassis (4). The drive bay (41), slightly wider than the straight U frame for easy installation, features two screw holes (43) and two hollow tabs (42) which match the screw holes (12) and the downward folds (13) on the flanks (11). When inserting the straight U frame (1) into the chassis (4), ensure the downward folds (13) on the flanks (11) to slide into the hollow tabs (42), and align the two screw holes (12 and 43) and fix it on the chassis (4) with screws.

Fig. 3 illustrates the CD/DVD drive stacked onto the straight U frame. After fastening the straight U frame in the drive bay (41) in the chassis (4), stack the CD/DVD drive onto it through the upside opening on the chassis, and align the pilot holes (44) and fix it on the chassis (4) with two screws (45).

Fig. 4 shows the internal drive installation mechanism of this design happily sit in the chassis. The hard disk drive (3) and the floppy disk drive (2) stack is fixed in the straight U frame (1). After the CD/DVD drive is stacked onto the straight U frame (1) through the upside opening on the chassis (4), the top cove (46) is closed and fastened.

Compared with the prior art, the internal drive installation mechanism of this design enables you to install and fix floppy and hard disk drives in the straight U frame, to insert and fasten the assembly in the chassis, to stack and fix the CD/DVD drive onto the assembly through the upside opening on the chassis, and to close the top cover. This design saves installation time and lowers production cost.

The preferred embodiment of this design is described hereinabove, but it is not limited to this only. Any modification derived from this design by those who are familiar to it will be subject to the scope of the claims.

Illustrations:

Fig. 1(a): Top view of a preferred embodiment of the internal drive installation mechanism or the straight U frame.

Fig. 1(b): Right view of a preferred embodiment of the internal drive installation mechanism or the straight U frame.

Fig. 1(c): Front view of a preferred embodiment of the internal drive installation mechanism or the straight U frame.

Fig. 1(d): Front view of a preferred embodiment of the flanks of the straight U frame.

Fig. 1(e): Side view of a preferred embodiment of the flanks of the straight U frame.

Fig. 2(a): Top view of a preferred embodiment of the straight U frame mounted in the chassis.

Fig. 2(b): Front view of a preferred embodiment of the straight U frame mounted in the chassis.

Fig. 2(c): Right view of a preferred embodiment of the straight U frame mounted in the chassis.

Fig. 3: A preferred embodiment of the CD/DVD drive mounted onto the straight U frame.

Fig. 4: A preferred embodiment of the internal drive installation mechanism mounted in the chassis.

Captions:

straight U frame	1	flank	11	screw hole	12
downward fold	13	screw	14	screw	15
floppy disk drive	2	hard disk drive	3	chassis	4
drive bay	41	hollow tab	42	screw hole	43
pilot hole	44	screw	45	pilot hole	45
top cover	46	CD/DVD drive	5		

What is Claimed is:

1. An internal drive installation mechanism which contains a straight U frame with one flank at each end. One flank offers a screw hole and a downward fold. After placing and fastening the hard disk drive on bottom side of the straight U frame, and stacking and fixing the floppy disk drive onto it, insert the straight U frame with drives into the drive bay inside the computer chassis. The drive bay, lightly wider than the straight U frame for easy installation of the drive assembly, offers two screw holes and two hollow tabs which match the screw holes and the downward folds on the flanks for fixture of the straight U frame. Mount and screw the CD/DVD drive onto the straight U frame through the upside opening on the chassis, and then close the upper cover.
2. An internal drive installation mechanism which contains a straight U frame with one flank at each end according to claim 1, wherein one flank offers a screw hole

and a downward fold. After placing and fastening the floppy disk drive on bottom side of the straight U frame, and stacking and fixing the hard disk drive onto it, insert the straight U frame with drives into the drive bay inside the computer chassis. The drive bay, lightly wider than the straight U frame for easy installation of the drive assembly, offers two screw holes and two hollow tabs which match the screw holes and the downward folds on the flanks for fixture of the straight U frame. Mount and screw the CD/DVD drive onto the straight U frame through the upside opening on the chassis, and then close the upper cover.